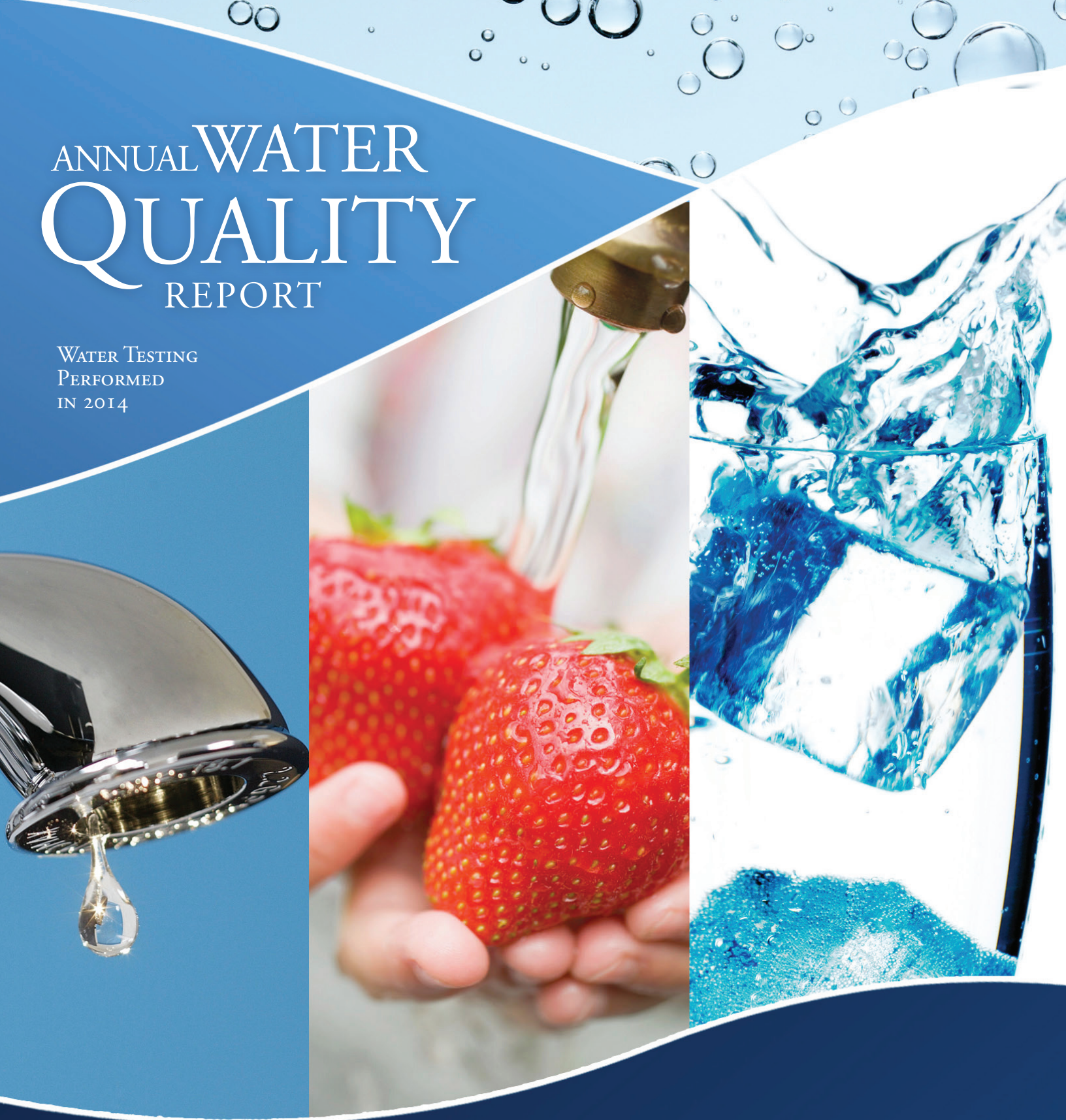


ANNUAL WATER QUALITY REPORT

WATER TESTING
PERFORMED
IN 2014



Presented By
Livermore Municipal Water



Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

PWS ID#: CA01-10-011

Our Mission Continues

We are proud to present once again our annual water quality report covering all testing performed between January 1 and December 31, 2014. Most notably, last year marked the 40th anniversary of the Safe Drinking Water Act (SDWA). This rule was created to protect public health by regulating the nation's drinking water supply. We celebrate this milestone as we continue to manage our water system with a mission to deliver the best quality drinking water. By striving to meet the requirements of SDWA, we are ensuring a future of healthy, clean drinking water for years to come.

Please let us know if you ever have any questions or concerns about your water.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. The Livermore City Council meets two times per month, beginning at 7 p.m. at the City Council Chambers, 3575 Pacific Avenue, Livermore, CA. Call the City Clerk at (925) 960-4200 for the exact meeting days, or the information can also be found on the city's Web site at www.cityoflivermore.net.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/hotline>.



Substances That Could Be in Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (U.S. EPA) and the State Water Resources Control Board (State Board) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

Contaminants that may be present in source water include:

Microbial Contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;

Inorganic Contaminants, such as salts and metals, that can be naturally occurring or can result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and which can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems;

Radioactive Contaminants, that can be naturally occurring or can be the result of oil and gas production and mining activities.

More information about contaminants and potential health effects can be obtained by calling the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead.

What's Your Water Footprint?

You may have some understanding about your carbon footprint, but how much do you know about your water footprint? The water footprint of an individual, community, or business is defined as the total volume of freshwater that is used to produce the goods and services that are consumed by the individual or community or produced by the business. For example, 11 gallons of water are needed to irrigate and wash the fruit in one half-gallon container of orange juice. Thirty-seven gallons of water are used to grow, produce, package, and ship the beans in that morning cup of coffee. Two hundred and sixty-four gallons of water are required to produce one quart of milk, and 4,200 gallons of water are required to produce two pounds of beef.

According to the U.S. EPA, the average American uses over 180 gallons of water daily. In fact, in the developed world, one flush of a toilet uses as much water as the average person in the developing world allocates for an entire day's cooking, washing, cleaning, and drinking. The annual American per capita water footprint is about 8,000 cubic feet; twice the global per capita average. With water use increasing six-fold in the past century, our demands for freshwater are rapidly outstripping what the planet can replenish.

To check out your own water footprint, go to www.gracelinks.org/824/water-program or visit www.waterfootprint.org to see how the water footprints of other nations compare.

Where Does My Water Come From?

Since its inception, Livermore Municipal Water has received 100% of its wholesale water from the Zone 7 Water Agency, which treats water from the State Water Project in the Sacramento-San Joaquin Delta and groundwater wells in Pleasanton. Zone 7 is the wholesale water agency in the valley responsible for managing the potable water sources and providing either disinfected surface potable water or disinfected potable well water for the valley retail water agencies. The chart in this report includes the water quality results from Zone 7's two water treatment facilities (Del Valle and Patterson Pass) and four well fields (Hopyard, Mocho, Stoneridge, and Chain of Lakes). Livermore Municipal Water still receives most of its water from the two treatment plants, but during 2014, 23.1% of the total water received was from the Zone 7 wells in Pleasanton.



QUESTIONS?

For more information about this report, or for any questions relating to your drinking water, please call David Lennier, Water Supervisor, at (925) 960-8100.

Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. The state requires us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES													
				Livermore Municipal Water		Del Valle Water Treatment Plant		Patterson Pass Water Treatment Plant		Mocho Well Field			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	PHG (MCLG) [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2014	10	0.004	NA	NA	ND	ND–2	ND	ND	ND	ND–2	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppb)	2014	1,000	2,000	NA	NA	ND	NA	ND	ND	130	110–150	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Chromium (ppb)	2014	50	(100)	NA	NA	ND	ND	ND	ND	ND	ND	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits
Fluoride (ppm)	2014	2	1	NA	NA	0.1	0.1	0.1	0.1	0.1	0.1	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Haloacetic Acids–Stage 2 (ppb)	2014	60	NA	17.8	6.4–31.2	NA	NA	NA	NA	NA	NA	No	By-product of drinking water disinfection
Hexavalent Chromium (ppb)	2014	10	0.02	NA	NA	NA	NA	NA	NA	NA	NA	No	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits
Nitrate [as nitrate] (ppm)	2014	45	45	NA	NA	ND	ND–5	ND	ND–5	16	9–22	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits
Selenium (ppb)	2014	50	30	NA	NA	ND	ND	ND	ND	ND	ND–7	No	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)
TTHMs [Total Trihalomethanes]–Stage 2 (ppb)	2014	80	NA	48.9	15.9–87.1	NA	NA	NA	NA	NA	NA	No	By-product of drinking water disinfection
Total Coliform Bacteria [Total Coliform Rule] (% positive samples)	2014	More than 5.0% of monthly samples are positive	(0)	0	NA	NA	NA	NA	NA	NA	NA	No	Naturally present in the environment
Turbidity¹ (NTU)	2014	TT	NA	NA	NA	0.28	ND–0.28	0.24	ND–0.24	NA	NA	No	Soil runoff

Regulated Substances														
					Stoneridge Well		Hopyard Well Field		Chain Of Lakes Wellfield					
Substance (Unit of Measure)	Year Sampled	MCL [MRDL]	PHG (MCLG) [MRDLG]	Amount Detected	Range Low-High	Amount Detected	Range Low-High	Amount Detected	Range Low-High	Violation	Typical Source			
Arsenic (ppb)	2014	10	0.004	2	NA	ND	ND–2	ND	ND	No	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes			
Barium (ppb)	2014	1,000	2,000	270	NA	160	120–210	270	250–290	No	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits			
Chromium (ppb)	2014	50	(100)	ND	ND–13	ND	ND	ND	ND–11	No	Discharge from steel and pulp mills and chrome plating; erosion of natural deposits			
Fluoride (ppm)	2014	2	1	0.1	NA	0.1	0.1	0.1	0.1	No	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories			
Haloacetic Acids–Stage 2 (ppb)	2014	60	NA	NA	NA	NA	NA	NA	NA	No	By-product of drinking water disinfection			
Hexavalent Chromium (ppb)	2014	10	0.02	10	NA	NA	NA	9	8–11	No	Discharge from electroplating factories, leather tanneries, wood preservation, chemical synthesis, refractory production, and textile manufacturing facilities; erosion of natural deposits			
Nitrate [as nitrate] (ppm)	2014	45	45	19	NA	14	13–15	18	17–18	No	Runoff and leaching from fertilizer use; leaching from septic tanks and sewage; erosion of natural deposits			
Selenium (ppb)	2014	50	30	ND	NA	ND	ND–5	ND	ND	No	Discharge from petroleum, glass, and metal refineries; erosion of natural deposits; discharge from mines and chemical manufacturers; runoff from livestock lots (feed additive)			
TTHMs [Total Trihalomethanes]–Stage 2 (ppb)	2014	80	NA	NA	NA	NA	NA	NA	NA	No	By-product of drinking water disinfection			
Total Coliform Bacteria [Total Coliform Rule] (% positive samples)	2014	More than 5.0% of monthly samples are positive	(0)	NA	NA	NA	NA	NA	NA	No	Naturally present in the environment			
Turbidity¹ (NTU)	2014	TT	NA	NA	NA	NA	NA	NA	NA	No	Soil runoff			
Tap water samples were collected for lead and copper analyses from sample sites throughout the community														
Substance (Unit of Measure)	Year Sampled	AL	PHG (MCLG)	Amount Detected (90th%Tile)		Sites Above AL/ Total Sites		Violation		Typical Source				
Copper (ppb)	2013	1,300	300	85		0/30		No		Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives				
Lead (ppb)	2013	15	2	1.10		0/30		No		Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits				
Secondary Substances														
				Livermore Municipal Water			Del Valle Water Treatment Plant		Patterson Pass Water Treatment Plant		Mocho Well Field			
Substance (Unit of Measure)	Year Sampled	SMCL	PHG (MCLG)	Amount Detected	Range Low-High	Amount Detected	Range Low-High	Amount Detected	Range Low-High	Amount Detected	Range Low-High	Violation	Typical Source	
Chloride (ppm)	2014	500	NS	NA	NA	151	117–201	149	105–196	131	100–160	No	Runoff/leaching from natural deposits; seawater influence	
Color (Units)	2014	15	NS	NA	NA	0	0–2.5	0	0	0	0	No	Naturally-occurring organic materials	
Manganese (ppb)	2014	50	NS	NA	NA	ND	NA	ND	ND	ND	ND	No	Leaching from natural deposits	
Odor–Threshold (TON)	2014	3	NS	NA	NA	0	0	0	0–1	0	0	No	Naturally-occurring organic materials	
Specific Conductance (µS/cm)	2014	1,600	NS	NA	NA	768	641–968	764	634–1,022	1,156	948–1,405	No	Substances that form ions when in water; seawater influence	
Sulfate (ppm)	2014	500	NS	NA	NA	40	24–75	39	23–79	81	61–116	No	Runoff/leaching from natural deposits; industrial wastes	
Total Dissolved Solids (ppm)	2014	1,000	NS	NA	NA	404	358–522	398	226–520	701	552–894	No	Runoff/leaching from natural deposits	
Turbidity (NTU)	2014	5	NS	0.108	0.053–0.393	NA	NA	NA	NA	ND	ND–0.08	No	Soil runoff	

SECONDARY SUBSTANCES

				Stoneridge Well		Hopyard Well Field		Chain Of Lakes Wellfield			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	SMCL	PHG (MCLG)	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Chloride (ppm)	2014	500	NS	69	NA	83	79–87	65	53–80	No	Runoff/leaching from natural deposits; seawater influence
Color (Units)	2014	15	NS	0	NA	0	0	0	0	No	Naturally-occurring organic materials
Manganese (ppb)	2014	50	NS	ND	NA	ND	NA	ND	ND–35	No	Leaching from natural deposits
Odor–Threshold (TON)	2014	3	NS	0	NA	0	0	0	0	No	Naturally-occurring organic materials
Specific Conductance (µS/cm)	2014	1,600	NS	803	NA	949	852–1,058	751	686–834	No	Substances that form ions when in water; seawater influence
Sulfate (ppm)	2014	500	NS	48	NA	64	47–83	42	41–44	No	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (ppm)	2014	1,000	NS	478	NA	553	483–628	430	400–470	No	Runoff/leaching from natural deposits
Turbidity (NTU)	2014	5	NS	0.08	NA	ND	ND–0.05	0.1	0.06–0.2	No	Soil runoff

UNREGULATED AND OTHER SUBSTANCES

		Del Valle Water Treatment Plant		Patterson Pass Water Treatment Plant		Mocho Well Field		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Sodium (ppm)	2014	95	74–129	93	68–128	88	57–123	Runoff/leaching from natural deposits
Total Hardness as calcium carbonate (ppm)	2014	128	112–167	123	102–174	449	374–567	Erosion of natural deposits

UNREGULATED AND OTHER SUBSTANCES

		Stoneridge Well		Hopyard Well Field		Chain Of Lakes Wellfield		
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	TYPICAL SOURCE
Sodium (ppm)	2014	47	NA	60	43–77	32	26–37	Runoff/leaching from natural deposits
Total Hardness as calcium carbonate (ppm)	2014	270	242–315	378	351–416	331	292–369	Erosion of natural deposits

¹ Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of water quality. High turbidity can hinder the effectiveness of disinfectants.

Definitions

AL (Regulatory Action Level): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

µS/cm (microsiemens per centimeter): A unit expressing the amount of electrical conductivity of a solution.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs (SMCLs) are set to protect the odor, taste and appearance of drinking water.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. EPA.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NS: No standard

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

PDWS (Primary Drinking Water Standard): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

PHG (Public Health Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California EPA.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

TON (Threshold Odor Number): A measure of odor in water.

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.